

### REMARKS


Claims 9, 57, 58, and 101 are amended. These amendments are neither narrowing nor made to comply with requirements for patentability, but rather are made to reduce the number of claims. All claims that are cancelled are incorporated into amended claims; no subject matter is relinquished by the cancellations made herein.

The amendments to the claims are fully supported by the specification as originally filed. No new matter has been added.

Examination of this application is respectfully requested.

Respectfully submitted,

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## VERSION WITH MARKINGS TO SHOW CHANGES MADE

9. [Amended] The isolated nucleic acid molecule of Claim 1, wherein said nucleic acid molecule comprises at least one of SEQ ID No.1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93 or 94.
59. [Amended] The isolated nucleic acid molecule of Claim 1, wherein said isolated nucleic acid molecule encodes a P<sub>450</sub> oxidase, a hexopyranosyl-2-3-reductase, or a UDP-D-glucose 6-dehydrogenase from *Micromonospora echinospora* spp. calichensis
60. [Amended] The isolated nucleic acid molecule of Claim 1, wherein said isolated nucleic acid molecule encodes a membrane transporter, an O-methyltransferase, a glycosyltransferase, a N,N-dimethyltransferase, a dipeptide transporter, an L-cysteine/cystine C-S-lyase, an oligopeptide transporter protein, a regulatory protein, a desaturase, a transcriptional regulator, an oxygenase, a halogenase, a  $\beta$ -keto-acyl synthase III, a cytochrome P450, a TDP-4-keto-6-deoxy-L-hexose 2,3-dehydrogenase, an orsellenic acid synthase, a polyketide cyclase, a polyketide synthase, an integrase, a chromosome partitioning protein, a hydroxylase, an aminotransferase, a glu-ammonia-ligase andenylyltransferase, a methyltransferase, an integral membrane protein, a membrane protein, an immunity resistance protein, or an insertional element from a gene cluster of *Micromonospora echinospora* spp. calichensis coding for calicheamicin biosynthesis.

61. [Amended] A polypeptide comprising amino acid sequence SEQ ID. No.: 2, 4, 6, 8,  
10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54,  
56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92 or 95.